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ABSTRACT

Enrollment patterns of women in higher education and factors that may contribute to these patterns are examined based on a review of the literature. Evidence is cited indicating that while women are attending colleges and universities in large numbers, they continue to study fields traditionally studied by women, and they continue to enroll in the types of institutions that traditionally have high concentrations of female students. It is suggested that institutional factors such as costs, provision of financial aid, or the availability of information that would assist students in making enrollment decisions may contribute to the variance in male and female enrollment rates. While financial aid has been increasingly available in the form of grants, loans, and work, evidence is cited that students are not receiving adequate information on costs and the availability of financial assistance. It is suggested that lack of valid financial aid information is a barrier to access to postsecondary education, and that if colleges and universities are serious about attracting females their promotional literature needs to appeal to the needs of both traditional and nontraditional women. (SW)

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Women's Enrollment in Higher Education

Is There an Information Gap?

By

Sharon H. Bob, Ph.D.

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Powerful constraints continue affecting the participation of women in higher education. There continues to be an underrepresentation of women students in certain fields and institutions. Factors accounting for this phenomenon are complex and interrelated. Women may have developed negative attitudes and expectations because of the influence of their socialization process. Institutional policies and practices may also be operating to influence the enrollment patterns by failing to encourage the entrance of women.

Enrollment patterns have produced mixed results. In recent years there has been an increase in the enrollment of women in colleges and universities. Women accounted for 93 percent of enrollment growth in 1977-78. From the Fall, 1979, enrollment figures, women account for 50.7 percent of the students. For the first time in history, women represent the majority of students (Chronicle of Higher Education, November 5, 1979, p.6). College women now outnumber college men in the 18 to 19 year-old population (Chronicle of Higher Education, January 9, 1978, p. 1). In addition, there has been an increase in the percentage of degrees awarded to women. In 1976, women received 46 percent of all bachelor's degrees, 46 percent of all master's degrees, and 23 percent of all doctorates conferred (Chronicle of Higher Education, October 11, 1977, p. 10). The percentage of first professional degrees has increased 184 percent between 1970-75 compared to a 37.4 percent increase for men. The increase in the number of doctorates has been even more dramatic over that same period. Although the overall number was small, the percentage increase grew by 59 percent, while the number of men receiving doctorates declined by almost 3 percent (Gappa & Uehling, 1979).

But what about the people behind the numbers? Has progress been made over the last decade in removing the barriers to higher education? Equal access is defined as having an equal opportunity to attend the postsecondary institution that can prepare a person for the occupation or lifestyle for which he or she is best suited in terms of abilities, interests, and talents and that

can provide those experiences for personal and social growth necessary to achieve self-realization (Astin, 1976).

A critical issue related to access is the type of institution a student attends. Attending a prestigious and affluent institution has obvious advantages: not only does such an institution offer the student rich learning experiences, but also may provide "fringe benefits" in that it facilitates his or her entry into graduate or professional school and into high status occupations (Astin & Bayer, 1972). Do women enter high quality institutions in the same proportion as men? Based on enrollment percentages, one would expect them to be equally represented at any institution regardless of type. But they made up only 37% of the student body at highly selective public universities and only 29% at highly selective private institutions. Instead of being evenly distributed among institutional types, they were concentrated at Catholic institutions and at private, medium-sized, two-year colleges. Women students are concentrated in the smaller, less selective, and less affluent institutions. These same types of institutions also have the highest concentration of women faculty. Women students and faculty are in the majority in institutions exhibiting the following characteristics: low to median admissions selectivity, least amount of money spent per student, and those whose average faculty salaries are among the lowest nationwide (Astin, 1976).

A more recent study conducted by the National Center for Educational Statistics (1979) found that while women are pursuing advanced studies in unprecedented rates, women continue to study in fields traditionally studied by women. In addition, they continue to enroll in the types of institutions which traditionally have high concentrations of female students.

These findings are contrary to popular opinion regarding the status of women.

The results of the most recent nationwide surveys provided some insights into the present-day attitudes toward sexual equality (NCES, 1979). According to a recent survey on the family, most parents responded that the best student regardless of sex should attend college. Overwhelming opinion of both parents indicated that the decision should be based on merit. Another poll of teenagers indicated that young adults believe that the U.S. provides equal opportunity.

Results of these surveys indicate that social attitudes about the value of educating women have become more liberal over the past century. Recent legal prescriptions in education and employment promoting changes in attitudes have accelerated the participation of women in higher education during the past decade. However, both the letter and the spirit of the law against sex discrimination are subject to varying interpretations and different approaches to implementation. There are pockets of resistance to equality as noted by differential enrollment patterns. While overt discrimination may no longer be evident, have institutions of higher education in fact provided environments which welcome women? Or is discrimination being covertly maintained.

Although women may be approaching parity in enrollment with men, persistent barriers to women's postsecondary educational opportunities are still prevalent. Where research has shown that the variables of socio-economic level, ability, family size, birth order, and parental encouragement contribute to the explanation, a great deal of variance in enrollment rates for males and females remain unexplained. Other factors which could contribute to the differences may revolve around certain institutional factors such as costs, provisions of financial aid or the availability of information which would assist students in making enrollment decisions.

Cost is a major barrier to postsecondary education for women though Federal and State funded financial aid programs have been improved continuously (H. Austin, 1976; CEEB, 1978; Steiger & Kimball, 1978; Westervelt, 1975). Today, financial aid is available for almost everyone in the form of grants or various loan programs. These programs are being used extensively by traditional age students. Billions of dollars of aid are being spent every year. Research indicates that the availability of financial assistance is an important factor in the college decision process (H. Astin, 1976; Campbell & Siegel, 1967; Fenske & Boyd, 1971; Fields & LeMay, 1973). However, there is evidence that traditional students and potential students are not receiving adequate information on costs or available financial assistance (A. Astin, 1976; CEEB, 1976; Carnegie Council, 1979). The non-traditional students appear to be even less informed about the costs and financial aid programs (H. Astin, 1976; CEEB, 1978; CEEB, 1977).

Financial aid has increased the availability of education opportunities, but many people think that there has been a mixed record of success in terms of enrollment patterns with regard to women. Finances should no longer be a barrier to higher education. Billions of dollars are now available to insure access and freedom of choice to students. Financial aid is available in the form of grants and loans for almost anyone. The increase in the commitment of public funds to student aid programs has been remarkable in the last decade. Federally financed aid to undergraduates is largely a phenomenon of the last two decades. The greatest growth has occured in the 1970s. In just the four-year period from fiscal years 1974 to 1978, the total sum of Federal student aid programs exclusive of veterans benefits has increased from $1.8 billion to $4.9 billion. Even in constant dollars, this total more than doubled. In 1979-80, such Federal funds will amount to more than $6 billion (Carnegie Commission, 1979). The recently passed Middle Income Student Assistance Act has further expanded opportunities for middle income families. Many early

State student aid programs were designed to assist students of superior ability and only gradually began to develop need-based student aid programs. In 1969-70, 19 states with need-based programs appropriated about $200 million. A total of 57 states and territories expended $829 million in 1978-79. Furthermore, despite the enormous increase in public funds, private sources continue to play a vital role.

Recent trends indicate that the availability and awarding of financial assistance may no longer be a barrier for women desiring a postsecondary education. As Brown and Heath (1977) showed recently, there are fewer differences in the financial resources between males amd females. They investigated whether sex discrimination existed in awarding financial aid to college students in 40 midwestern colleges and universities by using simulated profiles that were identical except for sex. The prediction that financial aid directors would develop significantly different packages for male and female applicants and that males would receive greater dollar amounts was not upheld. These findings contradicted the results of an earlier study conducted by Snyder (1971) which indicated that male students at Pennsylvania community colleges received larger financial aid packages. The authors speculated that the existence of Title IX has made financial aid directors more aware of sex discrimination issues and more faithful in following financial aid guidelines. Recent studies of recipients of Federal assistance indicated that women are getting a fair share of aid as measured by the proportion of awards distributed to men and women. However, these figures are difficult to interpret since no information is available on either the amount of the awards or the extent of financial need.

According to Bengelsdorf (1974), women have fewer opportunities for employment, and if they do find jobs, they receive lower wages than men. Although a substantial

number of women work, their average earnings are less. In a study of the Federal College Work Study Program (Friedman, Sanders & Thompson, 1973), the findings indicated that not only were males paid more than females, but males were twice as likely to hold high-level, career, or major-related jobs, regardless of class level, major, or grade point average. Restricted work opportunities are still prevalent for women students. The Carnegie Council Survey of Undergraduates (Carnegie Commission, 1979) found that white men average about $250 more in summer and academic year earnings and black women about $300 less, with white women and black men earning intermediate amounts.

Although women may not receive their fair share in earnings, other studies have shown that parents are more likely to support female children than male children. Previous studies indicated that a major support for women is their parents (Astin, 1976; Bob, 1976, 1977; Davis, 1977; Haven & Horch, 1972). According to Astin (1976), 65 percent of white women, as compared with 47 percent of white men, used parental aid as a major source of support for the freshman year. Men relied more on their own support through work or savings. Davis' (1977) study found similar results. Parents of women contributed more than expected in relation to amounts contributed by parents of men. Parental contributions to women represented significantly greater percentages of their total resources than did the contributions to men. He concluded that perhaps parents are more willing to contribute to a daughter's educational costs. A daughter's education may enhance the daughter's potential for marriage to a better educated man.

Scholarships and grants are another important source of student assistance. Although the percentage of women (46 percent) receiving scholarships as part of their support was slightly greater than that of men (42 percent), the median

dollar amount for women was $970, compared with $1,632 for men (Astin, 1976). Another study (Atelsek & Gomberg, 1977) found similar results. About 54 percent of all Federal aid recipients were women. The proportion varies by type of institution. However, the fact that no data were available on the amount of the awards makes it difficult to ascertain to what extent women benefit from Federal programs. Two Federally sponsored loan programs (National Direct Student Loan and Guaranteed Student Loan) also provide important sources of funds to students. An increasing number of women students at both the undergraduate and the graduate levels have been borrowing to finance their education (Astin, 1976).

If the availability of financial aids is no longer a barrier to college attendance, the cost of college education or the perceived costs could be an important factor in the college decision process (Bishop & Van Dyk, 1977; Cambell & Siegal, 1975; Fenske & Boyd, 1971; Fields & LeMay, 1973; Jackson, 1978; Leslie, Johnson & Carlson, 1977). Conflicting opinions on the importance of costs and financial aid in the decision making process have been found. On the one hand, some educators have stated that financial aid is infrequently noted by students as important in their choice of an institution. However, admissions officers have indicated that aid enhances if not insures enrollment. Both positions may be true since the differences seem due to actual but unnoticed differences in the impact of financial aid at the several stages of enrollment process: the prospect, the applicant and the matriculant stages (Huddleston & Batty, 1978; Jackson, 1978).

Four forces affect a person's decision to attend: his or her desire to preserve or attain a given status, or the desire to invest in the future, the attractiveness of higher education as a way to spend one's time, and socioeconomic conditions. Therefore, at the "prospect" stage, applicants seek those institutions that seem to "fit" their individual desire, talents and goals.

At the second, or "applicant" stage, cost becomes a factor. After students have searched for institutions of like attributes, they are less likely to apply to those institutions that are significantly more expensive than the others, all other attributes being equal. It is obvious that detailed information on costs and financial aids at this stage could effect the decision to consider a college (or type of a college). Good information could effect a person's perceptions of their ability or inability to attend a certain institution.

Finally,during the "matriculant" stage, financial assistance becomes critical in making the enrollment decision. At this stage, financial aid is often the most important factor affecting the buying process by the applicant. Institutional studies of reaction and yield to financial aid offers reveal the loss of enrollments and institutional revenues from inadequate offers (Huddleston & Batty, 1978). The decision to pay the price of purchasing higher education at this stage has been likened to the decision made to purchase a car or a house. The importance of the financial aid offers at this stage cannot be understated.

Why does cost remain a barrier to many women when billions of dollars of aid are being spent annually? Why is the effectiveness of financial aid as a persuader met with pessimism by policy makers?

Currently, most institutions fail to provide good information to students about costs and aid (College Entrance Examination Board, 1976). Willett (1976) found that information disseminated by schools was vague, incomplete, and sometimes misleading. Corvin and Kent (1977) pointed out the kind of information that is not readily available is information on how much college costs.

In addition to receiving "bad" information, other studies have also suggested that

students sought information from institutions they perceived that they could afford to attend (Cambell & Siegel, 1976; Davis, 1977, 1975). Davis (1977) also reported that enrollment decisions by potential students may be rationalized first and foremost on financial grounds. A student may not know about the availability of student financial aid until after he or she matriculates. Thus, if a potential student lacks information about the possibility of receiving financial assistance that student may not even initially inquire. A recent report published by the National Manpower Institute (NMI) added validity to Davis' findings. According to the recent NMI survey entitled, "An Untapped Resource: Negotiated Tuition Aid in the Private Sector", a vast majority of companies have educational fringe benefit programs but only four to ten percent of a work force consisting of 1.8 million adults utilize the benefits. The respondents in the NMI survey indicated that the chief barrier to worker utilization of the tuition aid program was lack of adequate information (Charner, et. al., 1978).

A report by the College Scholarship Services Student Advisory Board (1976) indicated that students could not obtain information about what programs are available, how to apply, and what their rights and responsibilities are under aid programs. Information or the lack of information was the single most frequently expressed problem. Almost without exception, students felt that they were not aware of all possible financial aid programs available to them. The review of literature suggested that an information gap exists concerning educational costs and the availability of financial assistance, and this information gap may affect a student's decision to enroll in post-secondary education. Provisions of the Educational Amendments of 1976 require that colleges make certain information available to enrolled and perspective students who request such information. Such information should include what financial aid is available

and the cost of attendance. Even with this law, it would appear that colleges and universities have done little to provide "better" information. If adequate information is not available, the public will not take advantage of Federal student aid programs as intended.

In addition to the lack of information on a timely basis, the path to financial assistance is complex and intimidating. Many individuals with little or no experience with forms and procedures not only have difficulty obtaining information but are faced with bureaucratic procedures, incompatible and complicated forms, and severe time constraints. What the financial aid officers can do to eliminate these psychological and effort costs will affect the college choice of prospective students.

Without adequate information, it is no wonder that public policy makers should expect student assistance to have very little real impact on the choice by students and parents about whether to enroll and at which institution to enroll. Furthermore, if price and net costs affect who applies, the current lack of valid financial aid information is indeed a barrier of access to postsecondary education.

Boone and Kurtz (1977) noted that the recipe for effective decisions is 90 percent information and 10 percent inspiration. Enis (1977) stated that information is data that can reduce the uncertainty in making a correct decision. Information is therfore absolutely essential to formalized decision-making procedures. The lack of information or poor communication of that information can create faulty perceptions which culminate in poor decisions. Despite the certainty that good information and sound decision-making are inseparable, people making educational decisions must do so without adequate information (Franklin, 1979).

Corvin and Kent (1977) also noted that it is imperative that reasonably accurate information be available so that potential students can make informed decisions. Huddleston and Batty (1978) have urged postsecondary educational institutions to adopt marketing practices in order to respond more effectively to the problems of poor information and communication concerning the availability of financial aid.

Given the research which has indicated that a financial aid information gap exists which may affect the enrollment patterns of women, an effective communication process needs to be developed. Marketing theory offers a means to understand the needs and problems of students and to assess the potential of the people to be served (Barton & Treadwill, 1978; Fram, 1974-75). Use of this theory provides a process to communicate the information and to provide the services which are responsibe to those needs (Leach, 1977).

Four concepts of marketing theory - promotion, price, product, and place - are most appropriate in examining the factors which effect a student's decision to attend college. The marketing definition of "place" involves the availability of "product", that is a convenient location where a variety of courses and programs are available. Price may be the exchange of a good or service. Price may involve tuition and fees, homemaking services, transportation, etc. "Promotion" must gain the attention, be understood, and stimulate the needs of the receiver (Boone & Kurtz, 1977). Marketing theory requires the understanding of the services required by potential students.

If colleges and universities are serious about attracting females, their promotional literature needs to appeal to the needs of both the traditional and the non-traditional women. More effective information may convince women that they can afford to exercise choice in applying and attending institutions of higher education.

While cost is considered to be seen as a major barrier, financial aid is available in the form of grants, loans, and work. Yet evidence has been cited that students are not receiving adequate information on costs and the availability of financial assistance. If females are enrolling in certain types of institutions and are limiting their choices, the barrier appears to be more a lack of information than a lack of financial resources. Equal opportunity will not be realized unless institutions provide adequate information on costs and available financial assistance.

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